CLAIMS

What is claimed is:

1. A calcium independent method of inhibiting cell surface receptor-mediated signaling comprising contacting a cell with an agent which induces CD81-mediated signal transduction.

2. A method according to Claim 1, wherein the cell surface receptor is selected from the group consisting of $Fc\epsilon RI$ and $Fc\gamma RIII$.

3. A calcium-independent method of inhibiting degranulation comprising contacting a cell with an agent which induces CD81-mediated signal transduction.

4. A method according to Claim 3, wherein the degranulation is mediated by the $Fc\epsilon RI$ receptor.

5. A calcium independent method of inhibiting cell surface receptor-mediated signaling in a mammal comprising administering to the mammal an effective amount of an agent which induces CD81-mediated signal transduction.

6. A method according to Claim 5, wherein the cell surface receptor is selected from the group consisting of $Fc\epsilon RI$ and $Fc\gamma RII$

7. A calcium independent method of inhibiting degranulation induced by a cell surface receptor-mediated signal in a mammal comprising administering to the mammal an effective amount of an agent which induces CD81-mediated signal transduction.

8. A method of treating an allergic condition in a mammal comprising administering to the mammal an effective amount of an agent which induces CD81-mediated signal transduction.

9. A method according to Claim 8, wherein the allergic condition is asthma, hay fever or atopic eczema.

10. A calcium independent method of enhancing cell surface receptor-mediated signaling comprising contacting a cell with an agent which inhibits CD81-mediated signal transduction.

11. A method according to Claim 10, wherein the cell surface receptor is selected from the group consisting of FcεRI and FcγRIII.

12. A calcium independent method of enhancing degranulation comprising contacting a cell with an agent which inhibits CD81-mediated signal transduction.

13. A method according to Claim 12, wherein the degranulation is mediated by the FcεRI receptor.

14. A calcium independent method of enhancing cell surface receptor-mediated signaling in a mammal comprising administering to the mammal an effective amount of an agent which inhibits CD81-mediated signal transduction.

15. A method according to Claim 14, wherein the cell surface receptor is selected from the group consisting of FcεRI and FcγRIII.

16. An assay for identifying agents which alter CD81-mediated signal transduction, comprising the steps of:

a) combining a cell bearing CD81 with an agent to be tested under conditions suitable for CD81-mediated signal transduction; and

b) determining the level of CD81-mediated signal transduction,

wherein if the level of CD81-mediated signal transduction is altered relative to a control, the agent alters CD81-mediated signal transduction.

17. An assay for identifying agents which alter calcium independent CD81-mediated regulation of cell surface receptor signaling, comprising the steps of:
    a) combining a cell bearing CD81 and an appropriate cell surface receptor with an agent which alters CD81-mediated signal transduction under conditions suitable for signal transduction by CD81 and the cell surface receptor; and
    b) determining the level of cell surface receptor signaling;

    wherein if the level of cell surface receptor signaling is altered relative to a control, the agent alters calcium independent CD81-mediated regulation of cell surface receptor signaling.

18. A method according to Claim 17, wherein the cell surface receptor is selected from the group consisting of FcεRI and FcγRIII.

19. A method of inhibiting passive cutaneous anaphylaxis in a mammal comprising administering to the mammal an effective amount of an agent which enhances CD81-mediated signal transduction.

20. A method according to Claim 19, wherein the agent is an anti-CD81 monoclonal antibody.